

Hybrid Cable Assemblies - The Power & Fiber Connection

The Hybrid Cable Assemblies provide for the interconnection of power and fiber between a “source” and “remote” location in our powered network systems. This essentially provides self powering security cameras, wireless access points and other PoE type devices that are at a remote location from the power source at distances in excess of normal PoE limits. These indoor/outdoor cables are designed to be used in the Chameleon system and are compatible with the Power Patch Panel and GatorLink products.

The cables are made with various fiber counts and wire gauges as required to provide the distance, port count and PoE power levels for most applications.

Hybrid cable assemblies are manufactured in North American facilities and adhere to the highest industry standards in manufacturing and are supported with a strong adaptive quality system and trained employees.

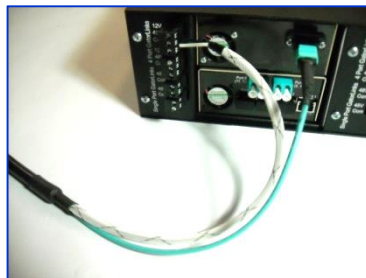


KEY FEATURES

- 2 fiber tight buffered, 8 or 12 fiber aramid loose tube, OM3 or SM
- 2x 18AWG, 2x 12AWG or 4x 12AWG wire
- LC Duplex or 8 and 12 fiber MTP/MPO connectors
- M8 copper connectors for remote GatorLinks, or wire pigtails for terminal block connections
- Combines power and communication in a single cable run, saves time
- Supports PoE extension distances up to 2km, well beyond the traditional 100M.
- Indoor/Outdoor applications, CL3R-OF rated.

Typical Interconnections

Hybrid Cable to Power Patch Panel (12 fiber type shown, MTP/pigtail copper end)



Hybrid Cable to Remote GatorLink (2 fiber type shown, LC/M8 end)



Ordering Information

H 0 0 1 - X X X
XXX Length (m)

1 2 3 4 5 6 7 8 9 10 11

1 Cable Type
 R = Riser
 P = Plenum
 Q = Riser Armored
 S = Plenum Armored

2 Fiber Count
 02 = 2 fiber
 08 = 8 fiber
 12 = 12 fiber

3 Fiber Type
 2 = OS2
 9 = OM3

4 Conductors
 C = 2x 18AWG
 D = 2x 12AWG
 E = 4x 12AWG

5 Fiber Conn A
 L = LC Duplex
 M = MTP(f) std
 N = MTP(m)

6 Furcation A
 2 = 2mm x 20cm
 3 = 3mm x 20cm
 9 = 900um x 20cm

7 Pwr Conn A
 M = M8 Pins
 F = M8 Sockets
 0 = No Conn

8 Fiber Conn B
 L = LC Duplex
 M = MTP(f) std
 N = MTP(m)

9 Furcation B
 2 = 2mm x 20cm
 3 = 3mm x 20cm
 9 = 900um x 20cm

10 Pwr Conn B
 M = M8 Pins
 F = M8 Sockets
 0 = No Conn

11 Pull kit
 B = End B
 D = Both ends
 0 = none

Example P/Ns

Hybrid Cable, 2 F OM3 2x18AWG. LC/M8 – LC Pigtail, 225 m long = **HR029CL2F20B001-225**

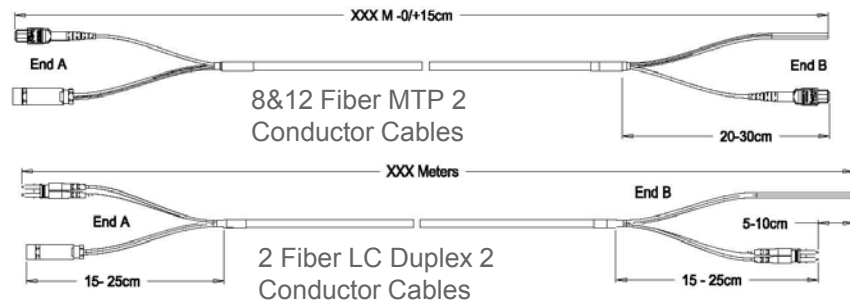
Hybrid Cable, 12 F OM3 2x12AWG. MTP(f)/M8 – MTP(f) Pigtail, 100 m long = **HR129DM3FM30B001-100**



Technical Specifications

Product Type	Characteristic	Optical Performance				Electrical Performance		
		OM3		SM		2X18 AWG	2X12 AWG	4X12 AWG
		850nm	1300nm	1310nm	1550nm			
2 fiber tight buffered breakout style cable	Attenuation	3.0dB/km	1.0dB/km	0.7dB/km	0.7dB/km			
	100M TX distance		2000m	5000m				
	1 GbE TX distance	600m		5000m				
8-12 fiber aramid loosetube style cable	Attenuation	3.0dB/km	1.0dB/km	0.4dB/km	0.3dB/km			
	100M TX distance		2000m	5000m				
	1 GbE TX distance	600m		5000m				
Optical Connector Loss	LC	<0.4dB						
	MTP	<0.5dB						
Low Voltage	Ohms/km each wire							
Temperature	Operating	-40 to +70C						
	Installation	-10 to +70C						
Bend Radius Minimum	Installation					13cm	15cm	19cm
	Long Term					9cm	10cm	13cm

Hybrid Cables
Shown with M8 and Pigtail copper ends



Length Suggestions in the Chameleon System

Hybrid Cable Powered Network Link Distance Table (when used with Chameleon System Products)
(meters between source and remote locations)

Distance shown for "100Base/1000Base" operating speed

PoE Level	Wire Gauge	1 Port Links		4 Port Links		6 Port Links	
		OM3	SM	OM3	SM	OM3	SM
Non PoE links	2X18 AWG	2000m/600m	5000m/5000m	1300m/600m	1300m/1300m	900m/900m	
	2X12 AWG			2000m/600m	5000m/5000m	2000m/600m	3500m/3500m
	4X12AWG						5000m/5000m
PoE (15W PSE)	2X18 AWG	600m/600m		150m/150m		100m/100m	
	2X12 AWG	2000m/600m	2500m/2500m	600m/600m		400m/400m	
	4X12AWG		4750m/4750m	1200m/600m	800m/600m	800m/800m	
PoE+ (30W PSE)	2X18 AWG	165m/165m		40m/40m		25m/25m	
	2X12 AWG	650m/600m	650m/650m	165m/165m		100m/100m	
	4X12AWG	1100m/600m	1100m/1100m	320m/320m		200m/200m	
PoE++ (60W PSE)	2X18 AWG	85m/85m					
	2X12 AWG	310m/310m					
	4X12AWG	650m/600m					

The Power & Fiber Connection